

Competence formation of engineering directions students in the field of energy saving as a way to create new generation technologies

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Abstract

© Published under licence by IOP Publishing Ltd. The urgency of the formation of competence in the field of energy saving in the process of studying engineering and technical disciplines at the university is substantiated. The author's definition of the competence in the field of energy saving is given, allowing to consider the necessity of its formation among students - future engineers as a way to create technologies of a new generation. The essence of this competence is revealed. The system of work, pedagogical conditions and technologies of its formation in the conditions of the federal university is substantiated.

<http://dx.doi.org/10.1088/1757-899X/240/1/012022>

References

- [1] Gilmanshin I R and Kashapov N F 2014 Energy Service Contracts in the Regional Engineering Center for Small and Medium Enterprises IOP Conference Series: Materials Science and Engineering 69 012010 69
- [2] Gilmanshin I R, Ferenets A V, Azimov Yu I, Galeeva A I and Gilmanshina S I 2015 Innovative technologies of waste recycling with the production of high performance products IOP Conference Series: Materials Science and Engineering 86 012014
- [3] Zimnia I A 1997 Pedagogical psychology (Rostov n / a: Denix) 480
- [4] Rubinshtein S L 1989 Fundamentals of general psychology 2 (M.: Pedagogika) 328
- [5] Zeer E F 2006 Psychology of professions (M.: Academic Project; The Mir Foundation) 336
- [6] Klimov E A 2004 Psychology of professional self-determination (Moscow: Academy) 302
- [7] Gilmanshina S I and Sagitova R N 2015 Professional Thinking Formation Features of Prospective Natural Science Teachers Relying on the Competence-Based Approach Review of European Studies 7 341-49 others No
- [8] Gilmanshin I R and Gilmanshina S I 2016 The formation of students' engineering thinking as a way to create new techniques, technologies, materials IOP Conf. Ser.: Mater. Sci. Eng 134 012006
- [9] Kuzmina N V 1990 The professionalism of the teacher's personality and the master of industrial training (M.: Higher School) 117
- [10] Gilmanshina S I and Gilmanshin I R 2015 Building of axiological competence of graduate students by means of project-based learning IOP Conference Series: Materials Science and Engineering 86 012029
- [11] Gilmanshina S I, Gilmanshin I R, Sagitova R N and Galeeva A I 2016 The Feature of Scientific Explanation in the Teaching of Chemistry in the Environment of the New Information of School Students' Developmental Education International Journal of Environmental and Science Education 11 349-358
- [12] Gilmanshina S I, Sagitova R N and Gilmanshin I R 2016 Innovative Component of Preparation of Bachelors and Masters in the System of University of Natural Science Education The European Proceedings of Social & Behavioral Sciences EpSBS XII 55-59